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FULTON BROOK GRID
1981 FIELD PROGRAM
Project 1224-7
for
SULPETRO MINERALS LIMITED

434285

W.P. Binney,
January, 1982.

FULTON BROOK GRID
1981 FIELD PROGRAM

- INTRODUCTION
- LOCATION AND ACCESS
- GEOLOGY
- GEOPHYSICAL SURVEYS
- GEOCHEMICAL SURVEY
- RECOMMENDATIONS

INTRODUCTION

The Fulton Brook area was staked April 1, 1981 to cover the westward extension of the Meguma Group rocks which are of interest on the Gold Brook claim group. To date work on the claim block has consisted of cutting a small grid. To confirm the location of the Halifax-Goldenville contact, the grid was mapped and magnetometer and Horizontal Loop EM surveys were run. B horizon soils were also collected and analysed for Pb and Zn.

LOCATION AND ACCESS

The claim group adjoins the Gold Brook claim group at Eastville, Colchester County and extends west as far as Newton Mills.

Access to the claims is by driveable and abandoned logging roads extending south from the Landsdowne Road.

GEOLOGY

Only the geology of the cut grid will be outlined here as little is known regarding the remainder of the claim group.

The oldest rocks are Cambro Ordovician impure quartzites of the Goldenville Formation. This formation is not exposed but its position can be inferred from the geophysical surveys and the presence of quartzitic float.

Overlying the Goldenville Formation to the south is the Halifax Formation, a succession of black slate with cross-bedded and laminated siliceous interbeds. These rocks dip to the south at approximately 65 to 70°.

Unconformably overlying the Meguma Group is a Lower Carboniferous pebble conglomerate cemented with limonite and dipping north at about 10°. Well exposed along Fulton Brook, this unit forms the base of the Windsor Group. Within the grid area the conglomerate is overlain by massive gypsum in cliffs up to 30m high. From regional

work it is known that there is a limestone unit overlying the conglomerate and also red siltstone in the covered interval.

For the purpose of this study only the slate-quartzite contact is of interest and this is well demarcated by the geophysical surveys.

GEOPHYSICAL SURVEYS

A magnetic survey was carried out in November, 1981 as well as a Max-Min II horizontal loop EM survey using 2 frequencies (444Hz and 1777 Hz). Results are presented on maps in the appendix.

Both frequencies of the EM survey gave strong anomalies which are known to correspond to graphitic slate horizons at the base of the Halifax Formation.

High magnetic data is confined to the southern portion of the grid and is a response to the pyrrhotite which occurs in the slate beds of the Halifax Formation.

GEOCHEMICAL SURVEY

B horizon soil samples were collected from a depth of 40-50cm at 25m intervals on all lines. Samples were not taken over thick gypsiferous terrain. The base line was sampled from L0E to L4E as geophysics and mapping had indicated this area lay immediately south of the Halifax-Goldenville contact.

All samples were analysed for Pb+Zn. Both metals gave a broad anomaly on the north ends of L8E and L10E. This is the western extension of the strong anomaly that crosses the House Grid on the main Gold Brook claim group. The area is underlain by quartzite on the basis of the geophysical survey and also drilling by Getty in 1974. Therefore, this part of the anomaly is possibly due to glacial transport.

The other anomalous Pb-Zn area is on L6E and L8E north of Fulton Brook. The soils are not highly anomalous but

the area is roughly coincident with the Halifax-Goldenville contact which is buried in this location by Windsor Group pebble conglomerate. The conglomerate is only about 3m thick and it is possible for migration of fluids up through it from the underlying slate. No anomalous samples were obtained from the western portion of the grid where the contact appears to subcrop. This could be a function of poor soil development and a high proportion of river gravel in the sampling.

SUMMARY AND RECOMMENDATIONS

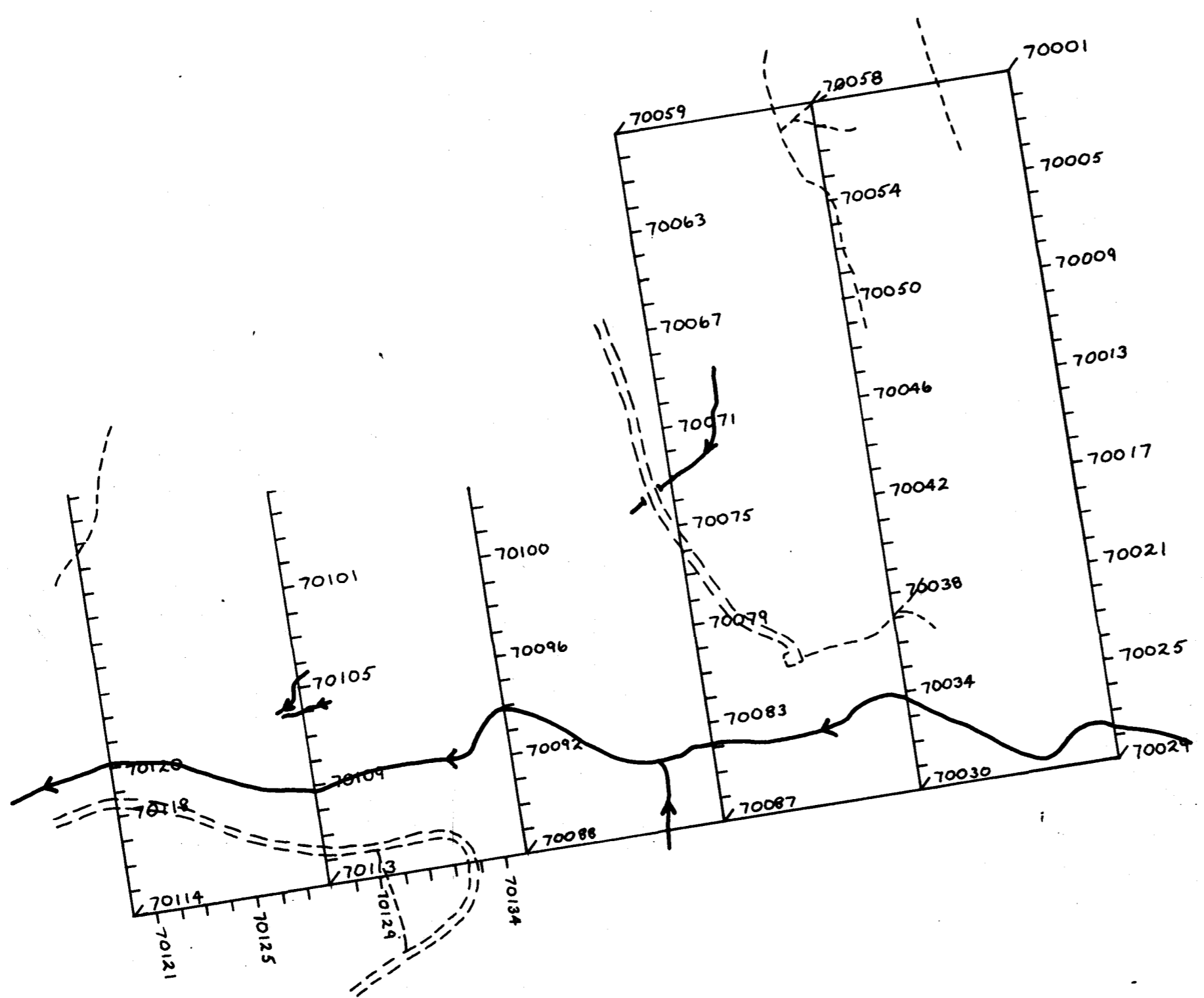
The geophysical and mapping programs were successful in delineating the position of the Halifax-Goldenville contact in an area covered by Windsor Group conglomerate and glacial drift. Geochemical response through this cover is not strong and only a small area of anomalous Pb+Zn in soil was outlined.

It is recommended on the basis of this work and also detailed work done on the Gold Brock claim group that 1 hole be drilled to a depth of about 200m to test the Halifax-Goldenville contact. Locations that would be most favourable for access include the end of the road between L6E and L8E and the logged off area from L0E to L4E.


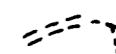
Respectfully submitted,

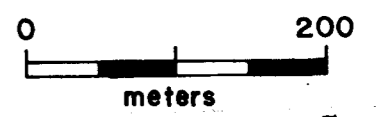
W. Paul Binney

W. Paul Binney, M.Sc.
Geologist.



LEGEND

-  BROOK
-  ROAD/TRAIL

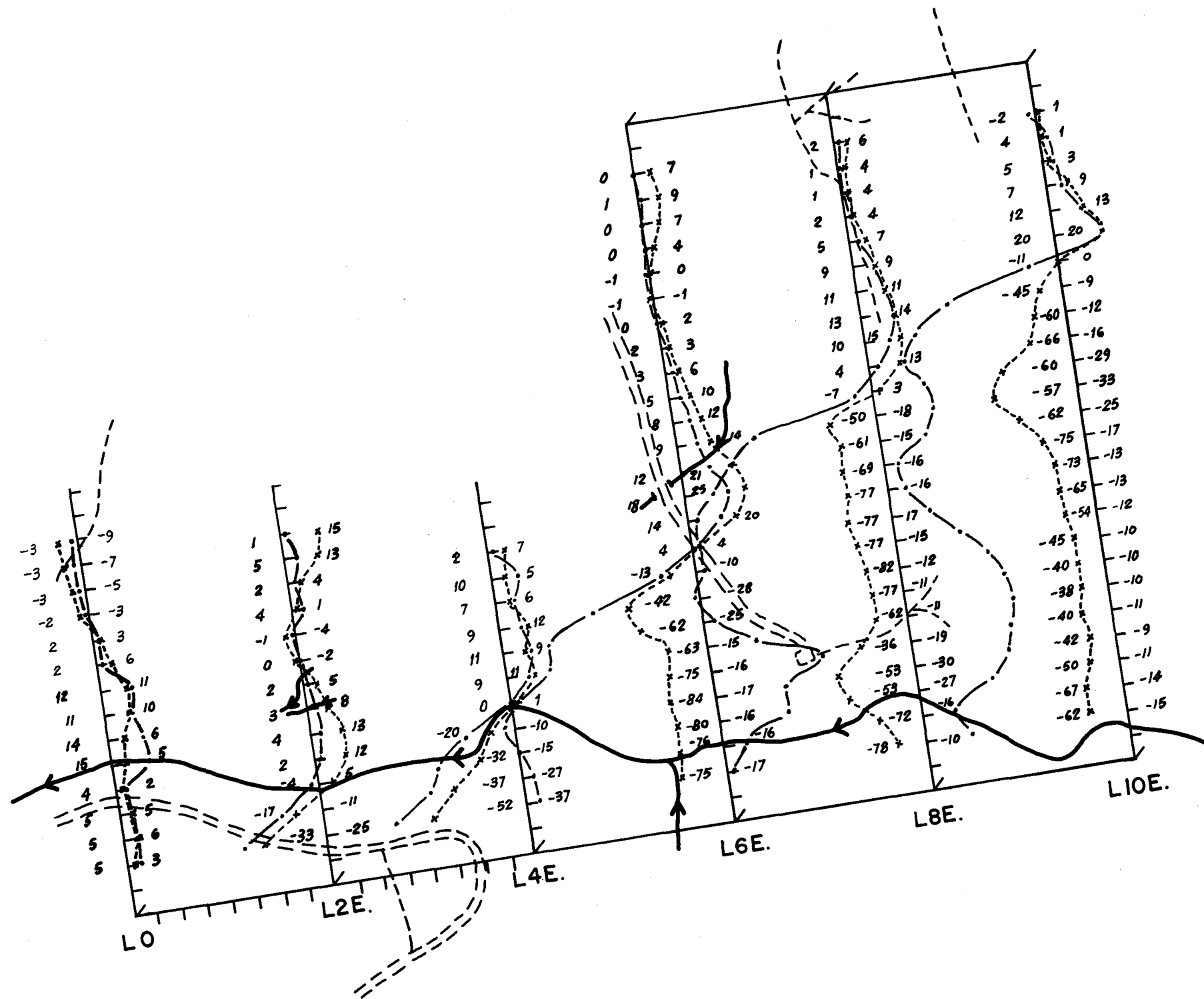


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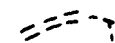
 **SULPETRO MINERALS LIMITED**
TORONTO, CANADA

**GOLD BROOK
FULTON BROOK GRID
SAMPLE LOCATION**

APPROX LAT & LONG OF LOWER RT COR OF DWG	PROJECT NO 1224-7	SHEET NO
LATITUDE	REPORT NO	OF
LONGITUDE		NTS



LEGEND

-  BROOK
-  ROAD/TRAIL

INSTRUMENTATION: Apex Parametrics Max-Min II

FREQUENCY: 1777 Hz.

COIL SEPARATION: 100m.

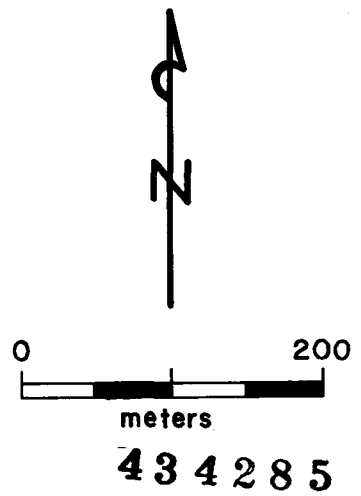
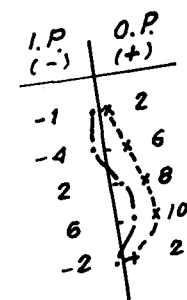
STATION INTERVAL: 25m.

LINE SPACING: 200m.

PROFILE SCALE: 1cm = 20%

PERSONNEL: J.L.Wright, R. Shearing

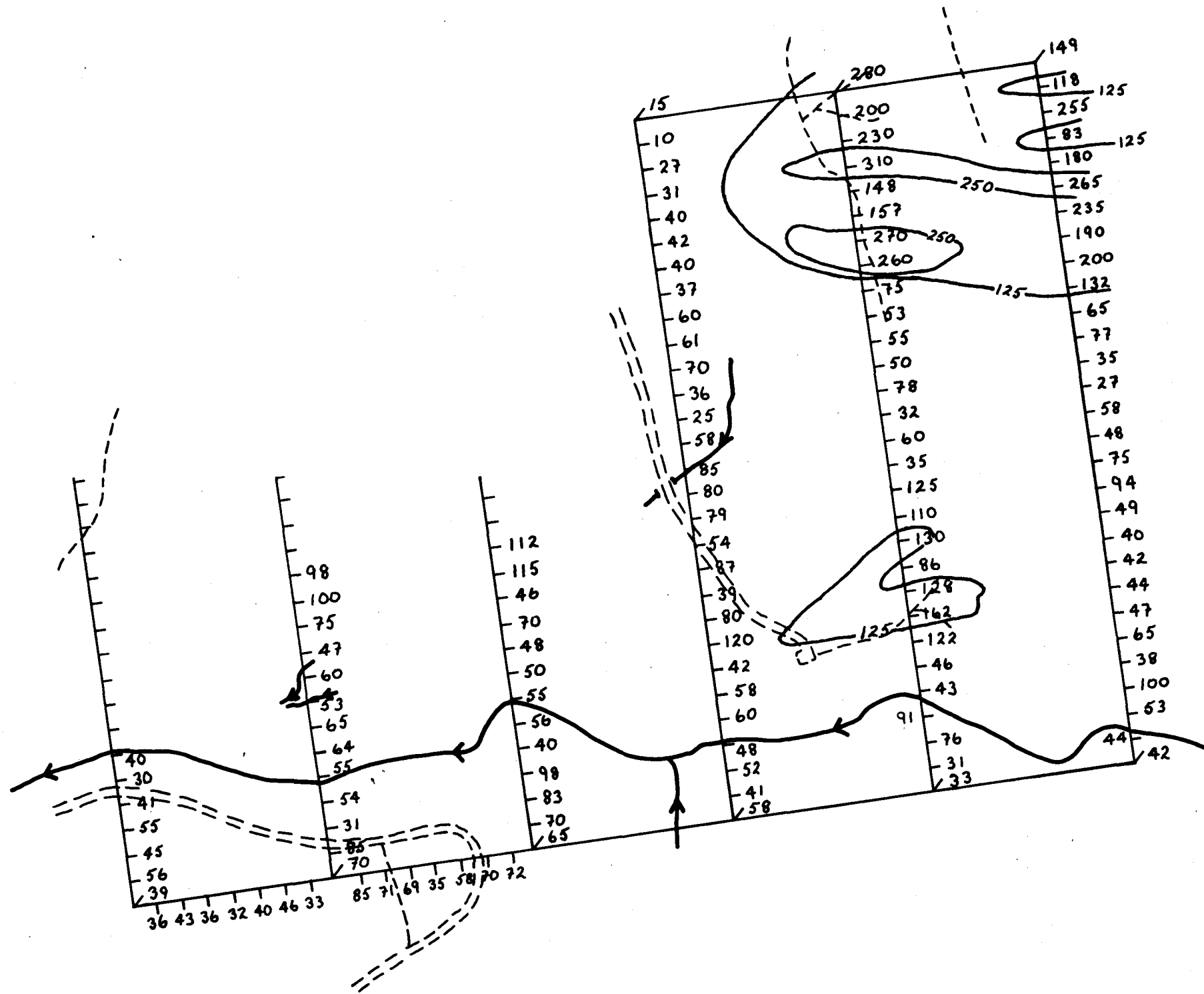
SURVEY DATES: Nov. 12, 1981




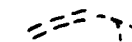
SULPETRO MINERALS LIMITED
TORONTO, CANADA

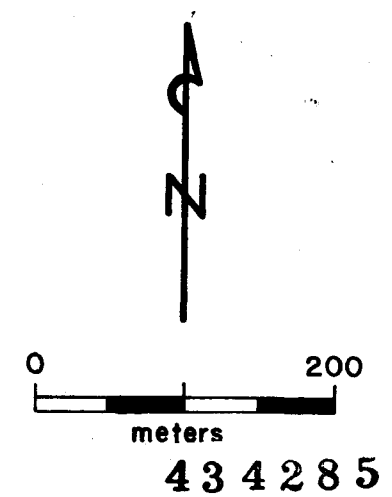
GOLD BROOK
FULTON BROOK GRID
H. L. E. M. SURVEY-1777 Hz.


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APPROX LAT & LONG OF LOWER RT COR OF DWG	REPORT NO	NTS
LATITUDE		
LONGITUDE		

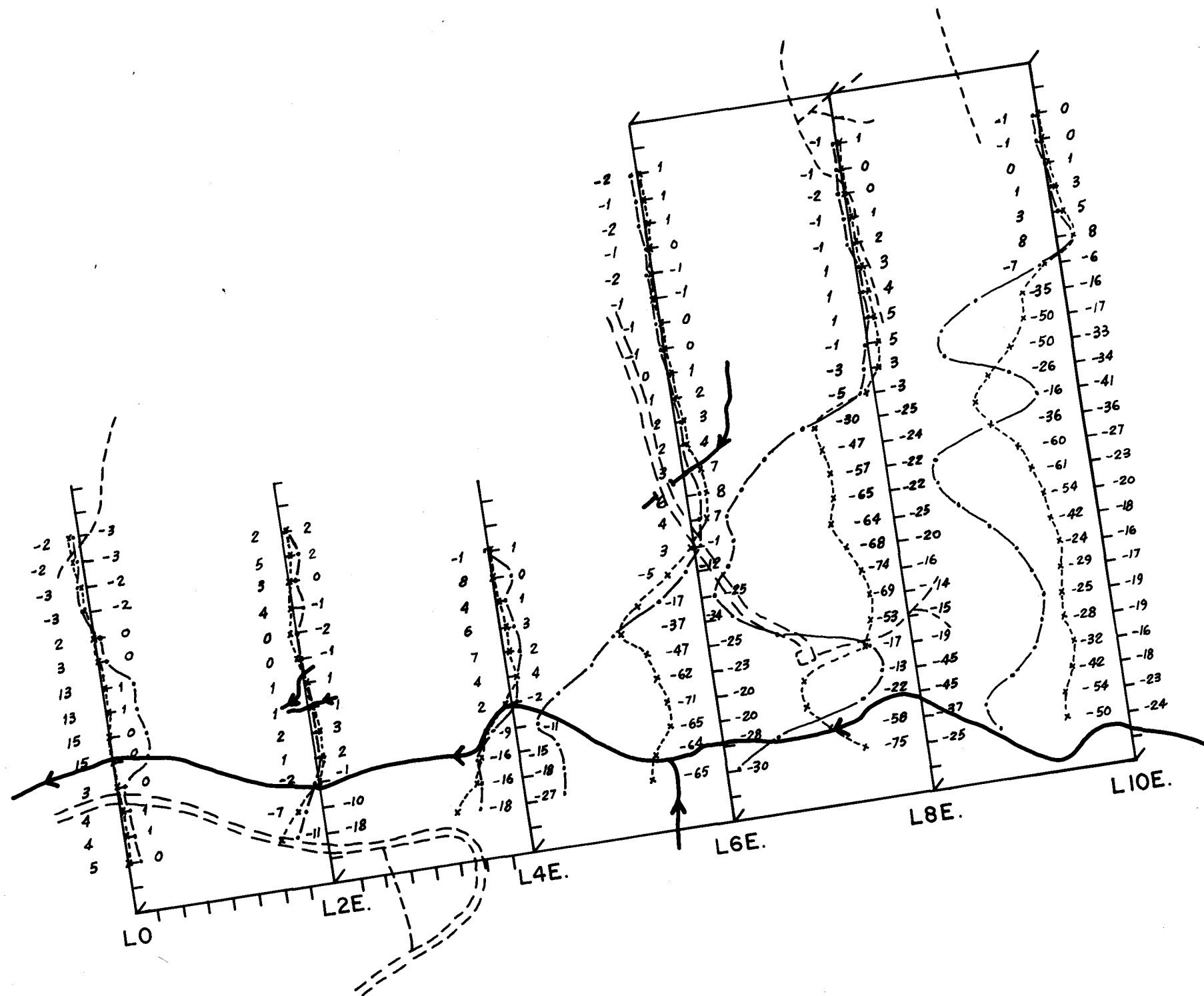


LEGEND


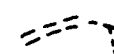
-  BROOK
-  ROAD/TRAIL



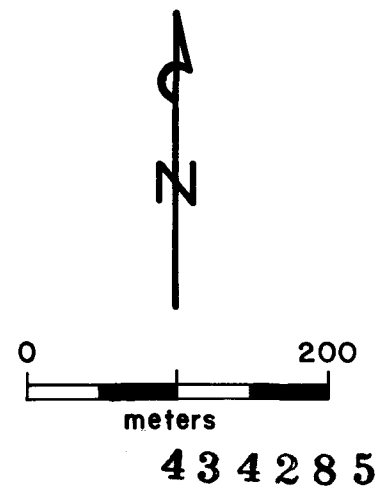
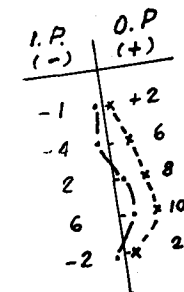
 SULPETRO MINERALS LIMITED <small>TORONTO, CANADA</small>		
GOLD BROOK FULTON BROOK GRID Zn (ppm)		
SCALE		
APPROX LAT & LONG OF LOWER RT COR OF DWG	PROJECT NO 1224-7	SHEET NO
LATITUDE	REPORT NO	OF
LONGITUDE		NTS



LEGEND

-  BROOK
-  ROAD/TRAIL

INSTRUMENTATION: Apex Parametrics Max-Min II
 FREQUENCY: 444 Hz.
 COIL SEPARATION: 100m.
 STATION INTERVAL: 25m.
 LINE SPACING: 200m.
 PROFILE SCALE: 1cm = 20%
 PERSONNEL: J.L. Wright, R. Shearing
 SURVEY DATE: Nov. 12, 1981

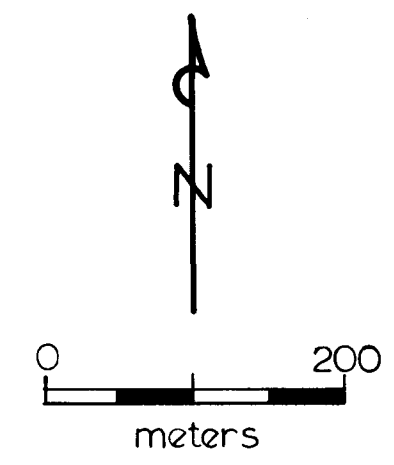
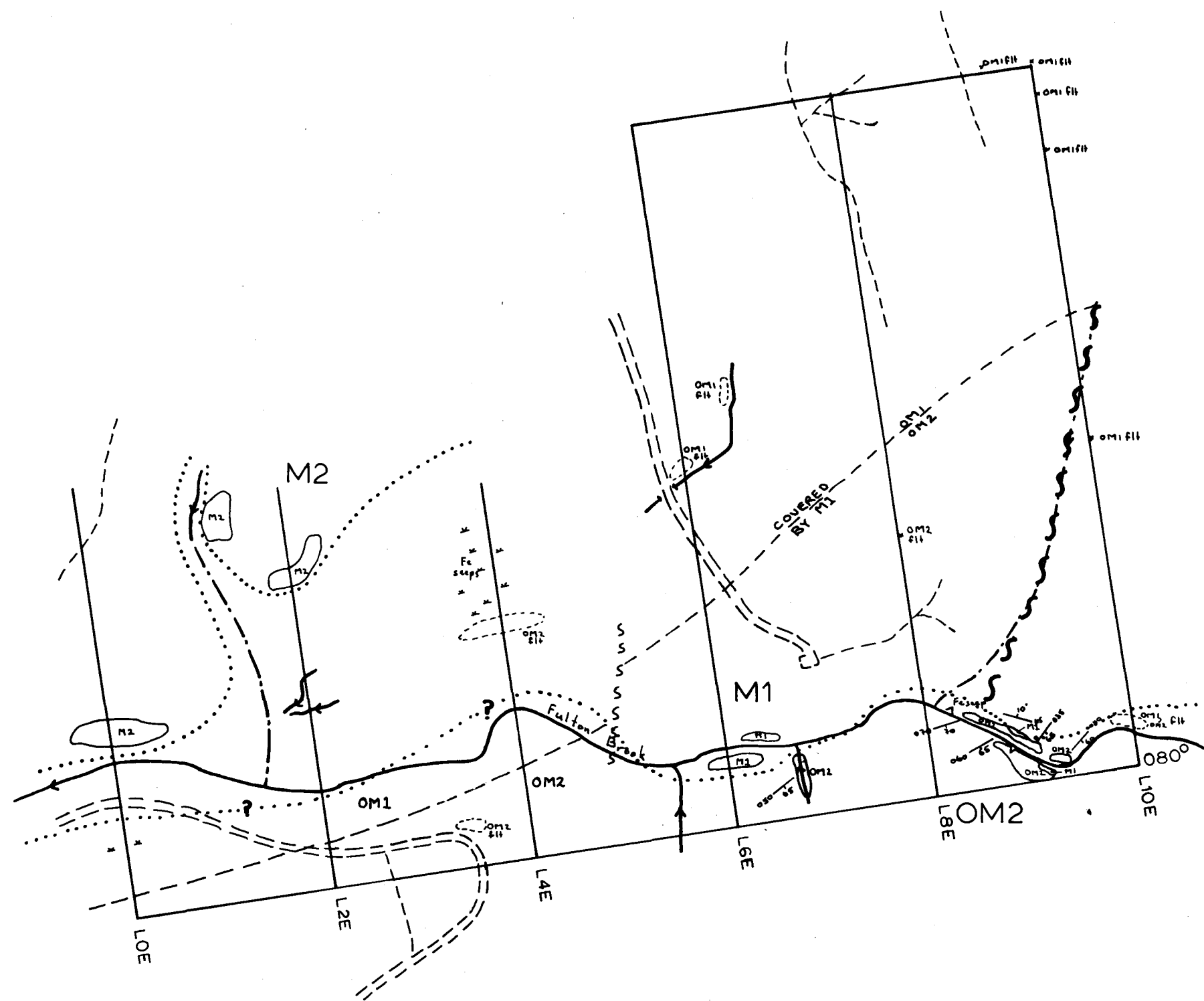


SULPETRO MINERALS LIMITED
 TORONTO, CANADA

GOLD BROOK
 FULTON BROOK GRID
 H.L.E.M. SURVEY-444 Hz.

SCALE: 1:5000

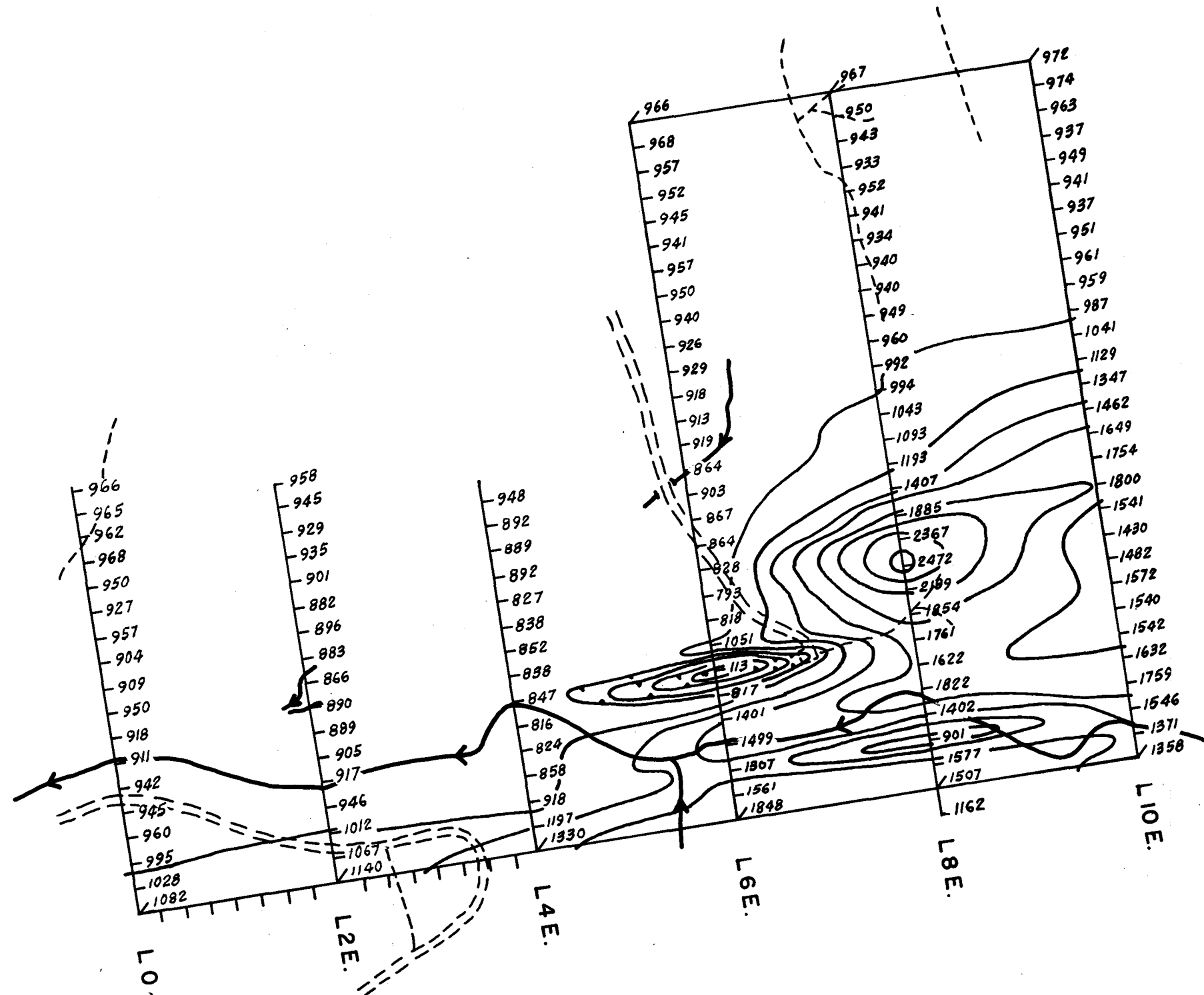
APPROX LAT & LONG OF LOWER RT COR OF DWG	PROJECT NO 1224-7	SHEET NO
— LATITUDE	REPORT NO	OF
— LONGITUDE		NTS





- WINDSOR GROUP
- M2 gypsum
- M1 conglomerate
- MEGUMA GROUP
- OM2 slate
- OM1 quartzite
- contact (from geophysics)
- road/trail

SULPETRO MINERALS LTD
 GOLD BROOK 1224-7
 FULTON BROOK GRID GEOLOGY

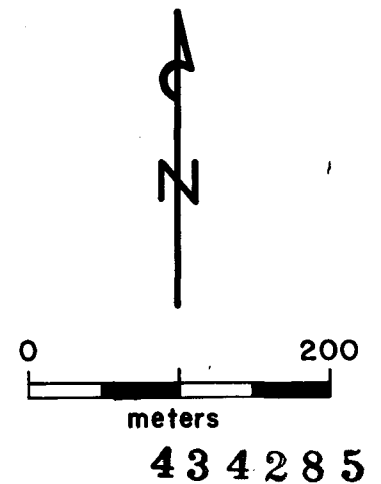
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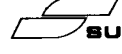


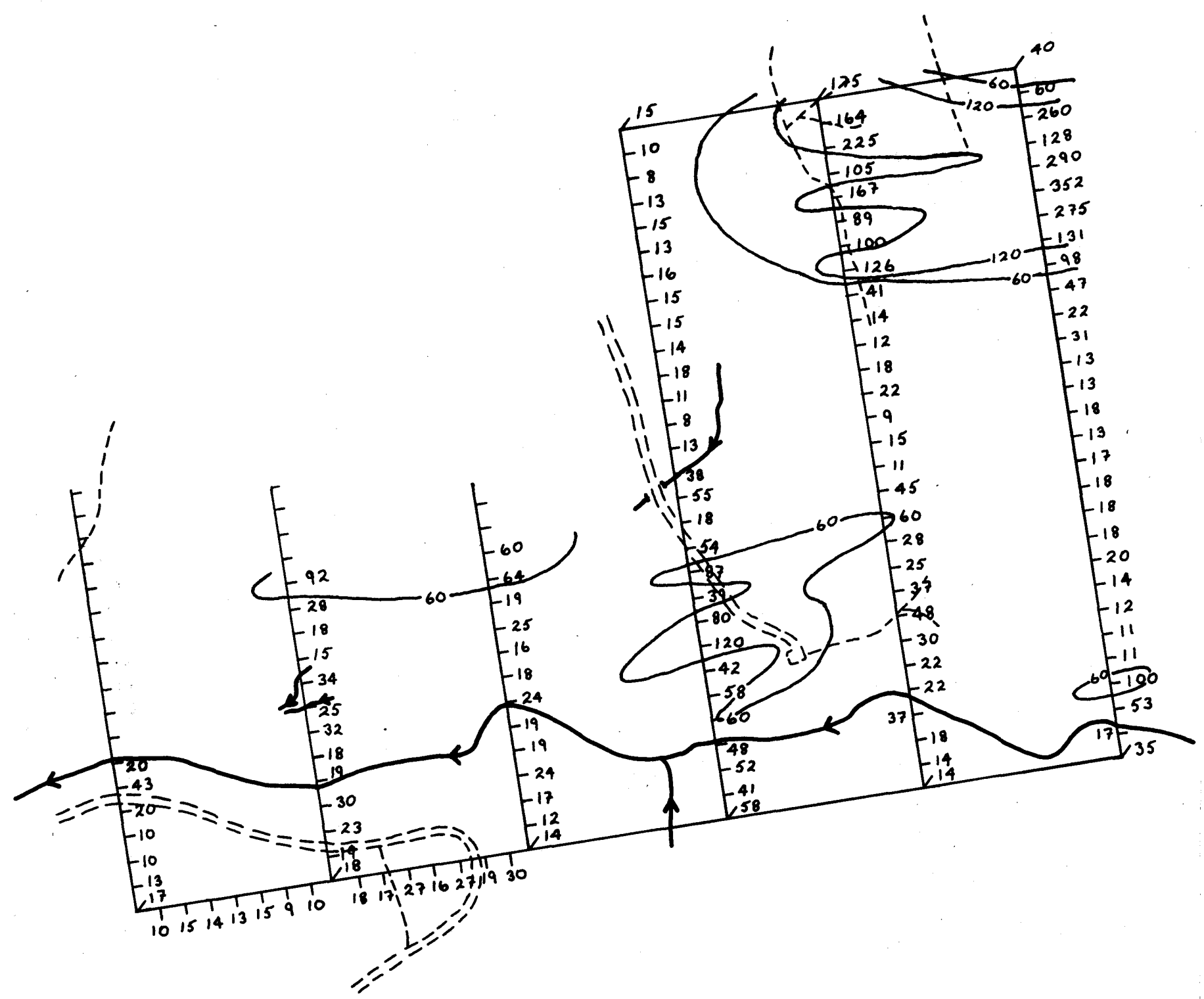
LEGEND

-  BROOK
-  ROAD/TRAIL


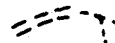
INSTRUMENTATION: Barringer GM-122, Magnetometer
 Scintrex MBS-2, Base Station
 BASE STATION VALUE: 54848.8
 BASE STATION LOCATION: L6E., 250 N.
 STATION INTERVAL: 25m.
 LINE SPACING: 200m.
 CONTOUR INTERVAL: 200.8
 PERSONNEL: D. Ward
 SURVEY DATE: Nov. 12, 1981

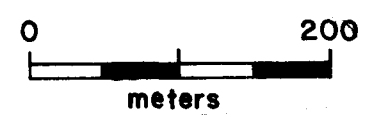


 SULPETRO MINERALS LIMITED <small>TORONTO, CANADA</small>		
GOLD BROOK FULTON BROOK GRID MAGNETOMETER SURVEY		
SCALE: 1:5000		
<small>APPROX LAT & LONG OF LOWER RT COR OF DWG</small> LATITUDE _____ LONGITUDE _____	PROJECT NO: 1224-7	SHEET NO: _____ OF _____ <small>NTS</small>
REPORT NO: _____		



LEGEND

-  BROOK
-  ROAD/TRAIL



434285

SULPETRO MINERALS LIMITED
TORONTO, CANADA

GOLD BROOK
FULTON BROOK GRID
Pbc (ppm)

SCALE	PROJECT NO 1224-7	SHEET NO
APPROX LAT & LONG OF LOWER RT COR OF DWG	REPORT NO	DF
LATITUDE	NTS	
LONGITUDE		